

Patent Claims

1. Method for wire-free transmission of data, the data being transmitted in time slots (Zx) using a
 - frequency-division multiplex method (FDMA),
 - 5 - time-division multiplex method (TDMA) and with
 - time division duplexing (TDD), and
 - the data being modulated onto a carrier frequency (f_x) using a GMSK modulation method, characterized in that
 - 10 - the carrier frequency (f_x) is changed after a pre-determined time period, and
 - a transmission frame contains 16 time slots (Zx).
2. Method according to one of the preceding claims, characterized in that
- 15 between 80 and 100 carrier frequencies (f_x) are used.
3. Method according to one of the preceding claims, characterized in that
- the data are transmitted in a frequency band between 2.4 and 2.4835 GHz.
- 20 4. Method according to one of the preceding claims, characterized in that
- the predetermined time period after which the carrier frequency (f_x) is changed corresponds to a time slot, a transmission frame or an integer multiple of a time slot
- 25 or of a frame.
5. Method according to one of the preceding claims, characterized in that
- an active time slot in which data are transmitted is in each case followed by an inactive time slot, in which no
- 30 data are transmitted.
6. Method according to Claim 5, characterized in that
- the time duration of the inactive time slots is half the time duration of the active time slots.
- 35 7. Method according to one of Claims 5 or 6, characterized in that
- the carrier frequency (f_x) for the next active time slot is set during the inactive time slot.

8. Transmission system for wire-free transmission of data, having a fixed station (1) and at least one mobile station (2, 3),

the fixed station (1) and the mobile station (2) each
5 having devices (4, 5) in order to transmit the data in time slots using a

- frequency-division multiplex method (FDMA),
- time-division multiplex method (TDMA) and with
- time division duplexing (TDD), and
- 10 - to modulate the data onto a carrier frequency (f_x), and to demodulate them, using a GMSK modulation method,

characterized in that

the devices (4, 5) in the fixed station (1) and the
15 mobile station (2) are designed such that the carrier frequency (f_x) is changed after a predetermined time period, and in that a transmission frame contains 16 time slots.

9. Transmission system according to Claim 8,
20 characterized in that between 80 and 100 carrier frequencies (f_x) are provided.

10. Transmission system according to one of Claims 8 or 9,

characterized in that

25 a frequency band of between 2.4 and 2.4835 GHz is provided for transmission of the data.

11. Transmission system according to one of Claims 8 to 10,

characterized in that

30 the predetermined time period after which the carrier frequency (f_x) is changed is set to the time duration of a time slot, of a transmission frame or of an integer multiple of a time slot or of a frame.

12. Transmission system according to one of Claims 8
35 to 11,

characterized in that

an active time slot in which data are transmitted is in each case followed by an inactive time slot, in which no data are transmitted.

13. Transmission system according to Claim 12, characterized in that the time duration of the inactive time slots is half the time duration of the active time slots.

5 14. Transmission system according to one of Claims 12 or 13,

characterized in that an RF module (4, 5) is provided in each case in the fixed station (1) and in the mobile station (2, 3), it being
10 possible to select the carrier frequency (f_x) of an active time slot in the RF module in each case during the preceding inactive time slot.